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ABSTRACT

This paper examines the relationship between wisdom and logic as found in adult reasoning. Material is from the current and growing literature in this area. The proposal that adult reasoning is dialectical and, therefore, beyond formal operations is scrutinized in light of popular definitions of wisdom, since wisdom is generally considered to be the most enviable and advanced form of human cognition. Furthermore, the question as to whether wisdom exceeds formal logic is analyzed in relation to the possible dialectical character of the content on which wisdom operates. (Author/YLB)

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WISDOM AND LOGIC

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This paper examines the relationship between wisdom and logic as found in adult reasoning. Material for the paper was gathered from the current and growing literature in this area. The proposal that adult reasoning is dialectical, and, therefore, beyond formal operations is scrutinized in light of popular definitions of wisdom, since wisdom is generally considered to be the most enviable and advanced form of human cognition. The question as to whether wisdom excedes formal logic is analyzed in relation to the possible dialectical character of the content on which wisdom operates.

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Wisdom and Logic

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Formal operations describe the application of formal logic in the solution of problems. For a number of years now, theorists of adult intelligence have argued that mature adult thinking goes beyond that of adolescence and may even go beyond that of formal operations.

Some of this argument stems from research and theory on problem solving and metacognition, that is, the process of monitoring one's own thinking strategies. Robbie Case (1978), for example, argued that an individual must have an executive scheme to monitor the application of specific strategies in formal operational problem solving. Deanna Kuhn (1983) differentiated this scheme and argued that there must be a dual executive, one for the selection of appropriate strategies, and the other for their correct application. Karen Kitchener (1983) went a step further to suggest that beyond monitoring one's own knowing strategies, one may also recognize the limits of the process of knowing itself, and in particular, that reasoning correctly about a problem does not necessarily lead one to an absolutely correct solution. This knowledge, Kitchener has labelled epistemic cognition, which she claims is not possible before adolescence, and may improve with age. Finally, Kitchener borrows the notion of wisdom as "knowledge of one's own ignorance" from Meacham (1983) and links it with epistemic cognition, the recognition of the limits of knowledge, itself. Epistemic cognition, then, becomes a necessary condition for wisdom.

To summarize, adult intelligence seems to go beyond monitoring one's own thinking strategies in problem solving, to recognizing the limits of knowledge itself and this recognition is seen as a necessary condition for wisdom.

There is also much suggestion these days that while problem solving is the conduit of adolescent formal logic, the nature of problems solved in adolescence differs radically from that of adults (Arlin, 1975; Labouvie-Vief, 1982). Or, that is to say, at least, that the problems examined in adolescence within the Piagetian tradition have tended to be only in the realm of scientific knowledge, where correct application of strategies leads to absolute and irrefutable conclusions. Gisela Labouvie-Vief (1982), for example, has claimed that the problems about which adults reason are often ill-structured, that is, there is not

necessarily an irrefutable answer, in fact, there is no ready made solution, and there may even be equally plausible competing solutions. According to Kitchener, ill-structured problems are the focus of wisdom. Thus, while adolescent reasoning has been examined visa vis problems with ready made, logically deducible solutions, adult reasoning may also need to solve problems with no such ready made solutions. Vivian Clayton (1982) extends this difference even further by relegating logical operations and intelligence to the world of objects, and wisdom to the social world.

When it comes to wisdom itself, it is generally deemed the hallmark of adult reasoning, and has long been associated with the aged (Clayton and Birren, 1980), as a knowledge gained from experience. Wisdom is indicated according to John Kekes (1983) by good judgment, especially regarding important but uncertain matters of life, according to Freya Dittman-Kohli and Paul Baltes (1985), and even elevated to a character trait according to Kekes (1983) and a virtue according to Elliot Jacques (1965) and Erikson (1964). Clayton (1975, 1982) in defining wisdom, called it 'contradictive cognition', that is, knowledge of human nature which is contradictory, paradoxical and subject to change. Clayton goes on to conclude, therefore, that knowledge of human nature can not be logical. The leap, I believe, is too hasty. First, one does not have to be illogical to recognize contradiction, paradox or change. In fact, one must use logic to discern all three. Second, the mark of wisdom is to have resolved problems, not to stay befuddled by them.

Clayton's (1975, 1983) speculations on the contradictory nature of adult reasoning follow from a line of research heralded by the late Klaus Riegel (1973) and relate to the dialectical nature of adult thought. In the past few years the suggestion that adult thinking is dialectical has led some researchers to argue that adult reasoning is beyond formal operations. Researchers such as Riegel (1973) claim that dialectical reasoning is naturally contradictory because it involves a juxtaposition of opposites, and thus violates the identity principle of logic. Since the function of logic is to eliminate contradiction, if the nature of mature adult reasoning is basically to be contradictory, there certainly is a problem with explaining wisdom, the hallmark of adult reasoning, by logic.

Does wisdom represent contradictory knowledge? Clayton (1982) would definitely answer "Yes." But Clayton's concept of contradiction follows from her interpretation of dialectical. Riegel (1973) as an earlier proponent of the contradictory essence of thought, went a step further, to speak of the contradictory nature of reality, which is

apprehended by thought. Riegel wrote "Everything is itself and at the same time many other things." (Riegel, 1973 p.351) To support his argument, he called forth basic dialectical notions in science: being and becoming, cause and effect; structure and transformation. But, dialectical constructs are hardly contradictory notions: they are only mutual dependencies. The notion that man is both being and becoming does not escape logic; man is in a state of being and in a process of becoming. That which is both a cause and an effect is a cause for a subsequent effect and the effect of a previous cause, and so forth, and so on. These oppositions delimit one another, but they do not contradict one another.

In an article criticizing the overplay of dialectics in the past few years, Charles Toulmin (1983) claimed that the word dialectic has been used historically with a multiplicity of meanings and as such is in jeopardy of losing its meaning. In contrast to the view of popular dialectical psychology, Toulmin argues that the dialectic is a technique which involves a "movement from one state (ignorance, uncertainty, error) to a qualitatively different state (knowledge, certainty) by opposition (contradiction, refutation, negation) and governed by internal necessity (logic, deduction)." (Toulmin, 1983 p.320) In this way, the opposition in contradiction points the way toward clarity and is a tool, not an end to thinking. In this fashion, resolutions of contradictions render them merely paradoxes, or, that is, only apparent contradictions.

It is possible that mature adult reasoning, and especially wisdom, may be quite sensitive to apprehending dialectical aspects of reality without either those aspects of reality or thought of them being contradictory.

Even if we consider dialectical only as mutual dependencies, rather that as a technique, the relationship between dialectical constructs and wisdom is obvious. One thing that becomes apparent in surveying the various views on wisdom put forth in the literature is that wisdom involves an individual's recognition of limits. A dialectical notion is defined by its limiting opposing constructs. If wisdom involves the recognition of limits and if wisdom comes with age it is not surprising that a dialectical view of reality also comes with age.

But I believe that there is more to wisdom than the recognition of dialectical opposition. Wisdom involves a knowledge of limits, whether it is the recognition of the limits of human nature, that is, that it is contradictory, paradoxical, and changing (Clayton), the limits of personal knowledge vis-a-vis ignorance (Meacham), the limits of the process of

knowledge itself (Kitchner) as it applies to ill-structured and uncertain matters of life (Labouvie-Vief, Dittman-Kohli and Baltes) or in the recognition of the limits inherent in one's own finitude (Jacques, 1965, Erikson, 1964). Wisdom, seems to inform us not only as to the limits of our being and our knowing, but also to instruct us as to the limits of the tools that attend to that end, most certainly including logic. I believe that these limits are often expressed in 'universal truths' and 'timeless knowledge' as spoken of by Kekes and Clayton, respectively, that many are carried on from generation to generation in stories and proverbs, and that they are put to good use directly and indirectly in the resolution of what Kitchener, Labouvie-Vief and Dittman-Kohli term ill structured problems, problems replete with dialectical oppositions.

In the classic wisdom story of King Solomon with the foundling baby and the two women contesting to be mother, Solomon appears to be suggesting a perfectly logical and just resolution to the problem: equal division of the goods in dispute. One of the aspects of wisdom here, I believe, is just the limit to this logical solution. In other words, one can not cut live humans in half and have them remain alive. Of course, there is more to the wisdom in the Solomon story; there is Solomon's deep understanding of human nature and its limitations for Solomon's suggested solution can only be meaningful and logical as a psychological ploy, a means of revealing the nature of a real mother's love, including compassion and self sacrifice.

Does that mean that mature adult reasoning, that which attempts to grasp the limits of human nature and the human condition is beyond logic? I do not think so. It is with wisdom that we recognize our limits and most certainly our limits in logic, but I believe that we must look from 'beyond logic' and monitor it with all the tools of logic that are at our disposal.

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